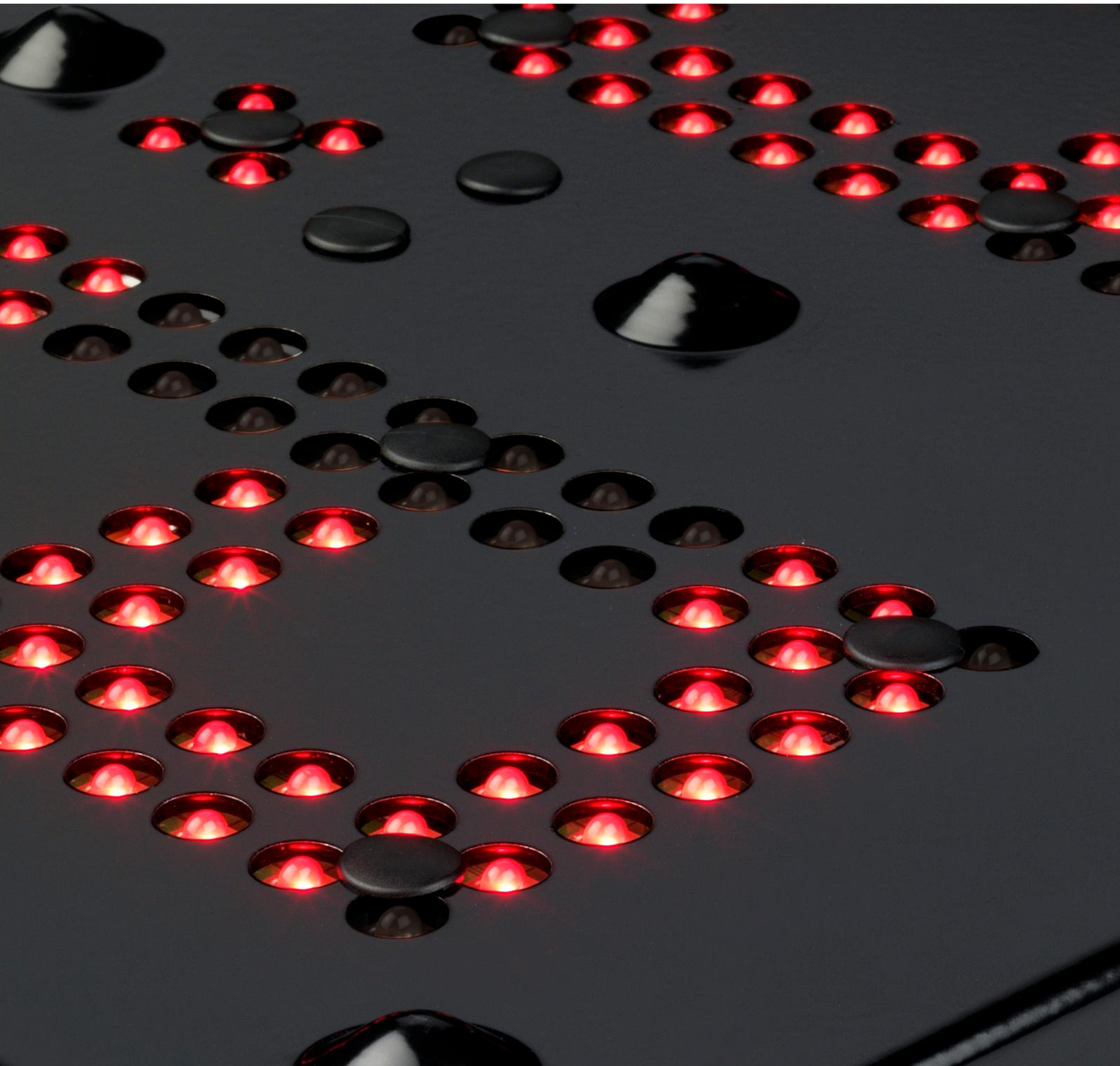


POS CONNECTIONS INTERFACE CONTROLLER

INSTALLATION MANUAL



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1. SAFETY RULES

Before you begin:



- Read this manual carefully before installing the system.

- Always adopt a safe posture. Use for this the applying rules.
- All dimensions in this document are indicated in millimeters.



- The display system is a complex electronic system. Only a Bever Innovations accredited service engineer is allowed to perform maintenance on the system.

- A readily accessible disconnect device must be incorporated in the building installation wiring.
- The pricepole and the display system must be connected to a main protective earthing terminal.
- Always switch off mains prior to installation or maintenance. This means the system must be physically separated from the mains. Secure the switch with a lock or other suitable means.
- Make sure the correct wiring is used for the connection of the display system. Most commonly this will be 1,5 mm² in combination with a 10A fuse. Make sure the correct fuse is always used for the applied wiring.
- Never connect a PC directly to a configuration port. Always use the HC02 interface for connecting the PC to a configuration port.
- Make sure that any circuitry connected to the sign controller (the light switch port in particular), meet the requirements of the IEC 60950-1 international standard.
- Never connect cable ties to the housing of the power supply. Instead use the cable tie rail which is located at the bottom of the sign controller housing.



- All Printed Circuit Boards (PCB) supplied by Bever Innovations B.V. must be handled as ESD sensitive devices. For more information on this subject please visit <http://support.beverinnovations.com> and download the "ESD precautions for handling spare parts" manual.



- The display system is protected against water in an upright position. Whenever transported in a pricesign, make sure the sign is properly sealed to prevent water from leaking into the display system.

- Do not power up the system immediately after transport from a cold to a warm place or vice versa, or under conditions of extreme humidity. Wait until all humidity is gone from the system components, before powering up the system.

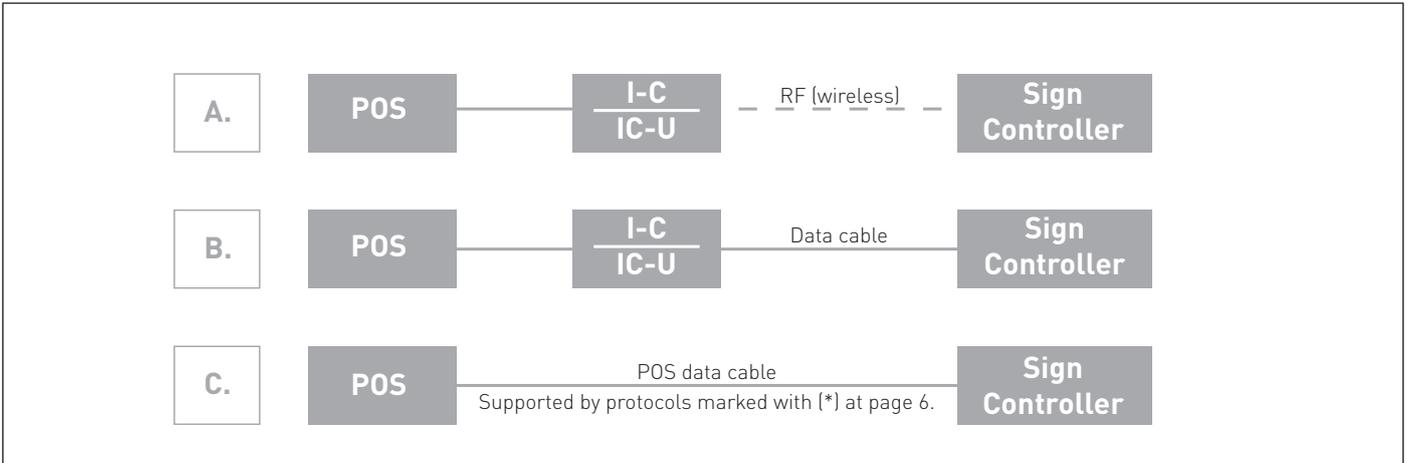


- Take care of the environment while working with products of Bever Innovations, by separation of waste.

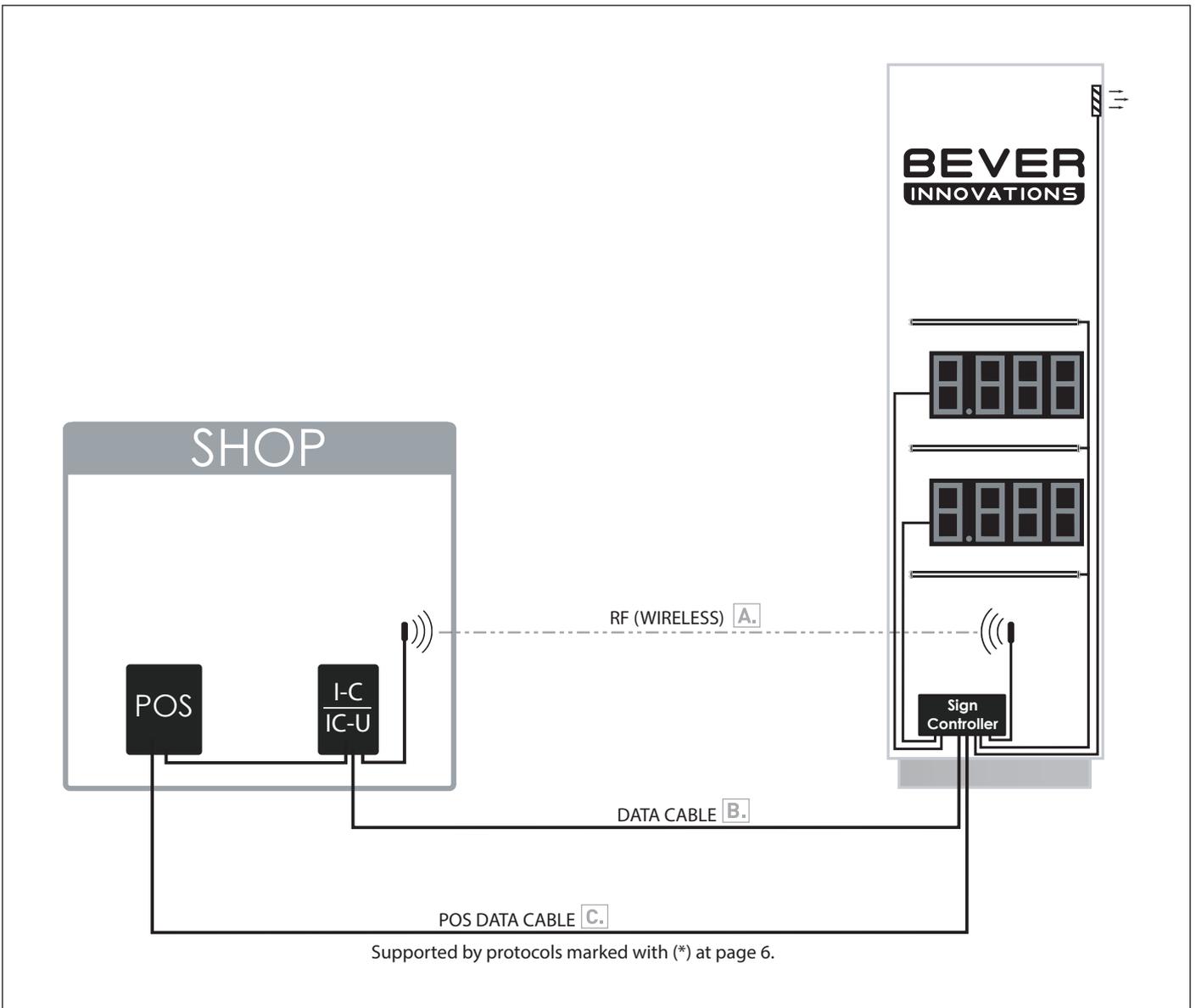
- Bever Innovations cannot be held responsible in any way for injury to people or damage to the system.
- Make sure the ventilation in- and outlets on the back and bottom of the displays are clear to prevent overheating.

2. POS CONNECTIONS

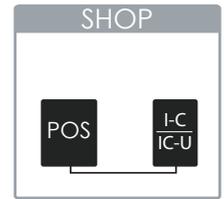
POS connection options



Sign with POS connection



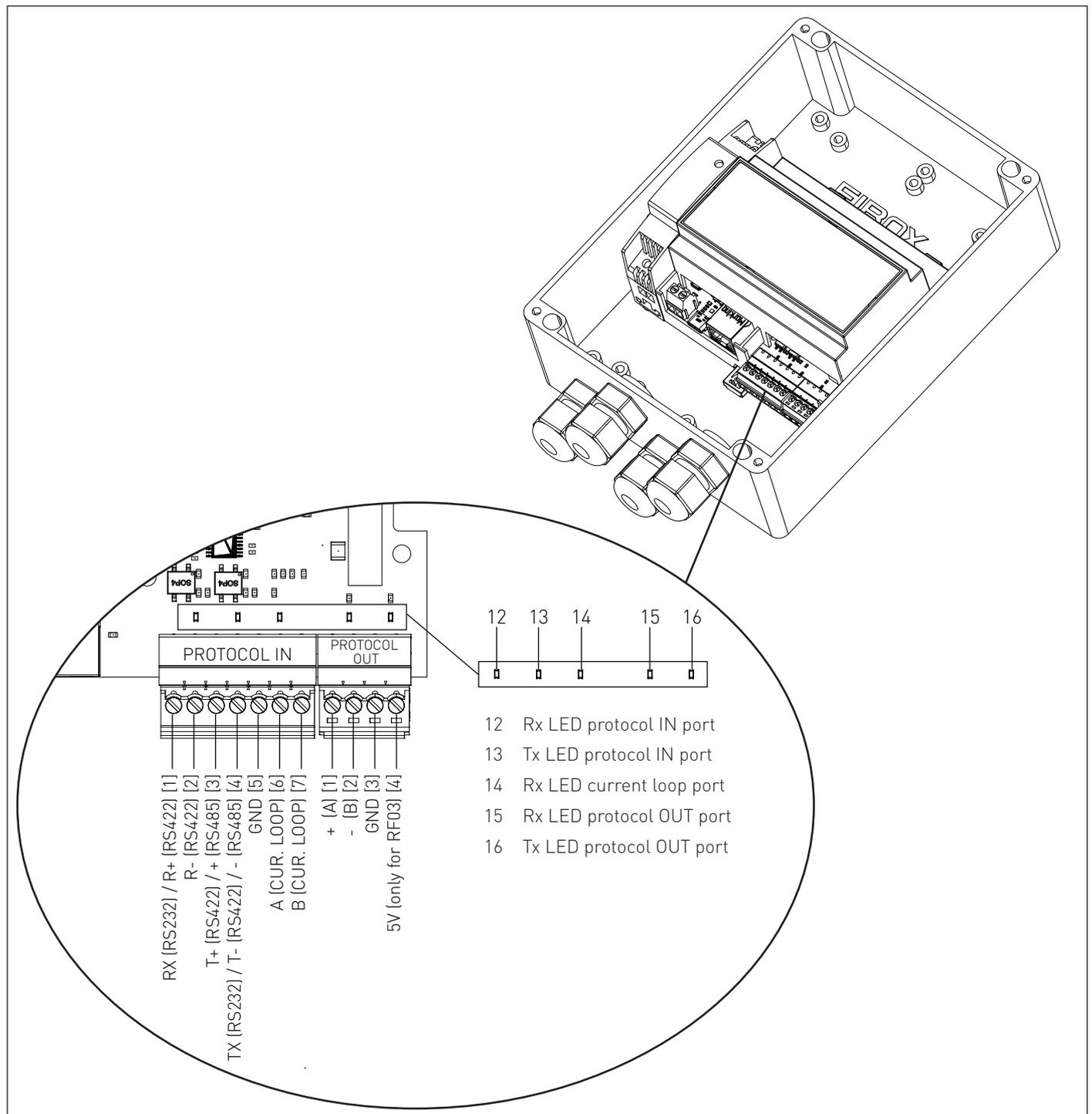
3. CONNECT THE POS TO THE INTERFACE CONTROLLER



3.1 Introduction

If POS connection option A or B is used, then the POS needs to be connected to the protocol IN port of the Interface Controller.

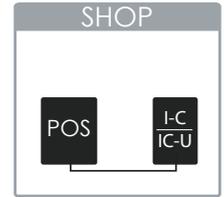
The connection type depends on POS protocol.



3.2 Protocol overview

Protocol:	Default settings:	
Autotank A&B	RS232-2400-8E1	} RS 232; 3.3 (page 07)
DOS task	RS232-2400-7E1	
Nucleus Wayne Dresser	RS232-1200-8N1	
E-P Electronics	RS232-2400-8N2	
ER3 Kienzle	RS232-1200-8N1	
Finnpos	RS232-2400-8E1	
Fujitsu	RS232-2400-8E1	
Fusion Dresser	RS232-1200-8N1	
Getpak	RS232-9600-8N1	
Jupiter EIN	RS232-1200-8E1	
Kubald	RS232-1200-8N1	
Lafon	RS232-1200-7E1	
Lafon PSEP	RS232-1200-8E1	
Marketer Wayne Dresser	RS232-1200-7E1	
KA Supervision	RS232-1200-7E1	
BP Pump	RS422-9600-8E1	} RS 422; 3.4 (page 08)
Distab (*)	RS422-2400-8N1	
Tokheim Koppens KA (*)	RS422-1200-7E1	
Novotec Wayne Dresser	RS422-1200-7E1	
Postec KAEP	RS422-1200-7E2	
Bever iDP (*)	RS485-19200-8N1	} RS 485; 3.5 (page 09)
Partyline	RS485-2400-801	
Partyline+	RS485-19200-801	
S&B V11	RS485-2400-7E1	
Alvic	RS485-9600-8N1	
DET Protocol	RS485-9600-8N1	
Trame ASCII	RS485-9600-8N1	
EIN	CL-1200-8E1	} Current Loop; 3.6 (page 10)
LON IFSF (*)	LON-9600	} LON; 3.7 (page 11)
LON FM Pricepole	LON-9600	

(*) Possible to connect the POS data cable directly to the sign controller.

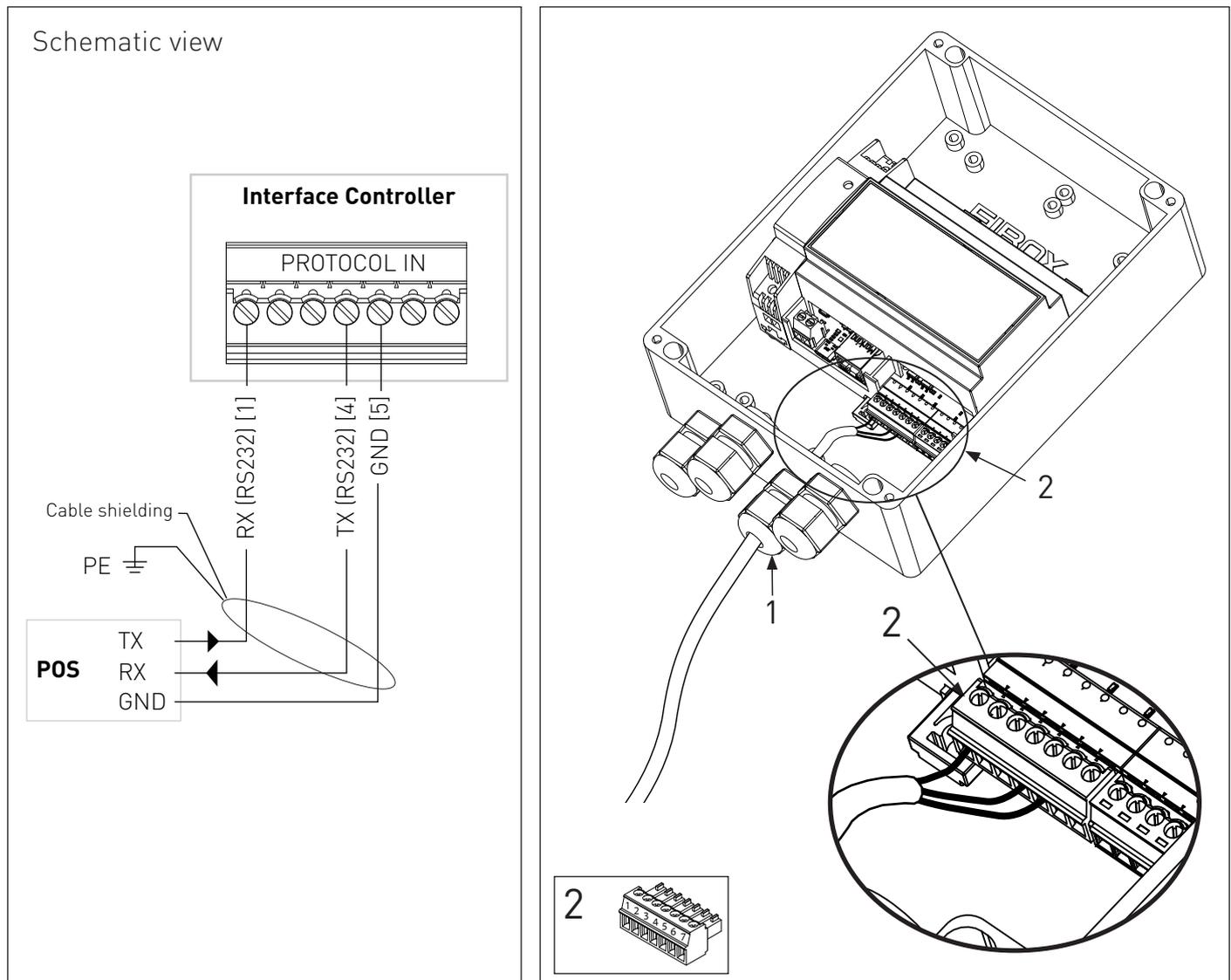


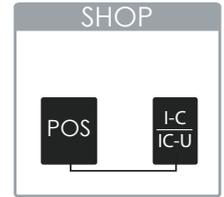
3.3 Connect the POS through RS232

For protocols using RS232 as a default setting please look at the table on page 6.

- This protocol uses a three wire connection.
 - The data cable must be a twisted-pair (2 x 2 x 0,25mm²) shielded cable.
 - Always make sure wire ferrules are applied to the data cable.
1. Feed the data cable through the cable gland which is located at the bottom of the I-C (interface controller) housing.
 2. There are connectors located at the bottom of the I-C circuit board. The 7-pole connector must be used for the connection of the data cable.

Use the schematic view for the correct connections. The numbers shown on the protocol IN connector of the I-C are equal to the numbers shown in the schematic view.





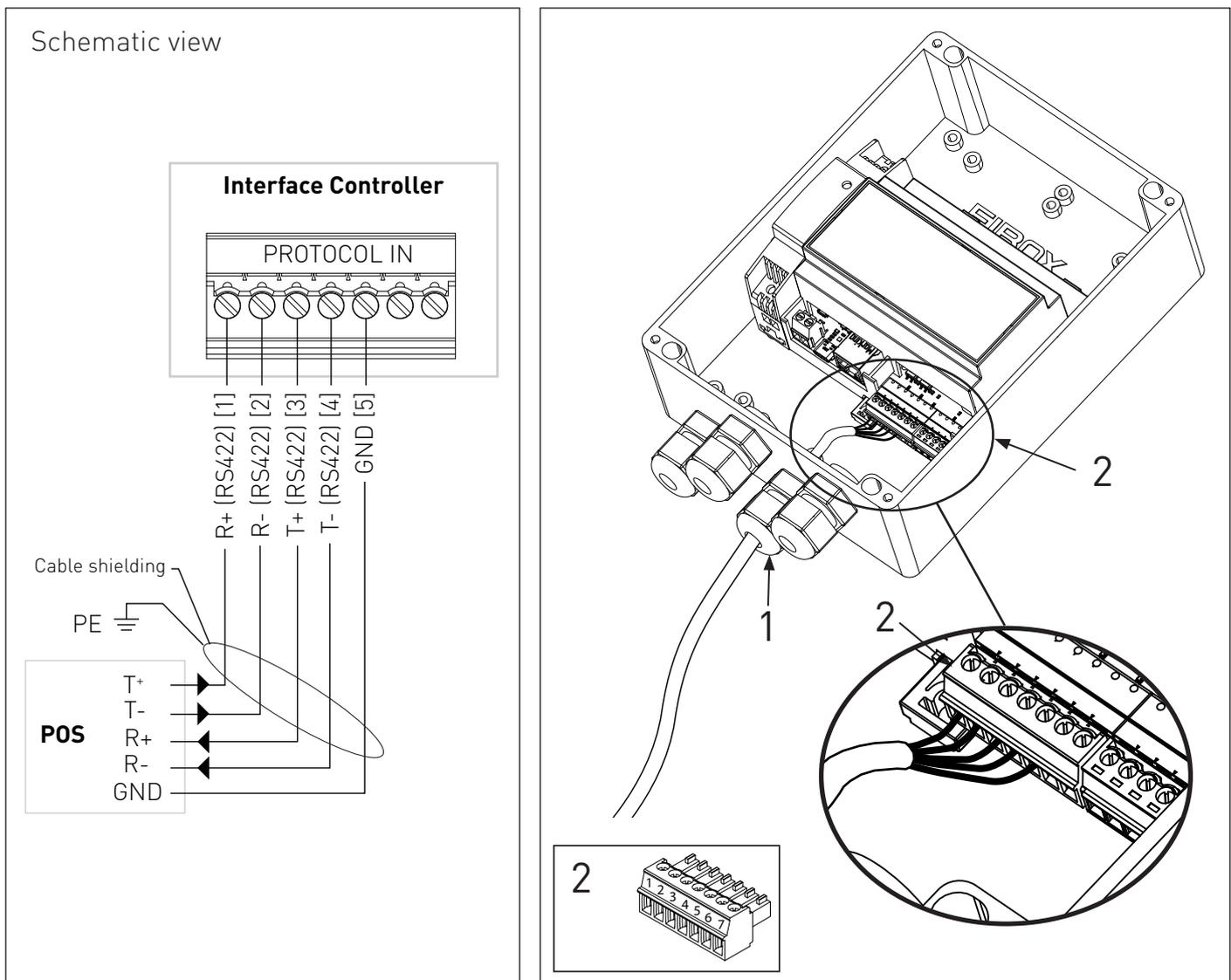
3.4 Connect the POS through RS422

For protocols using RS422 as a default setting please look at the table on page 6.

- This protocol uses a five wire connection.
- The data cable must be a twisted-pair (3 x 2 x 0,25mm²) shielded cable.
- Always make sure wire ferrules are applied to the data cable.

1. Feed the data cable through the cable gland which is located at the bottom of the I-C (Interface Controller) housing.
2. There are connectors located at the bottom of the I-C circuit board. The 7-pole connector must be used for the connection of the data cable.

Use the schematic view for the correct connections. The numbers shown on the protocol IN connector of the I-C are equal to the numbers shown in the schematic view.



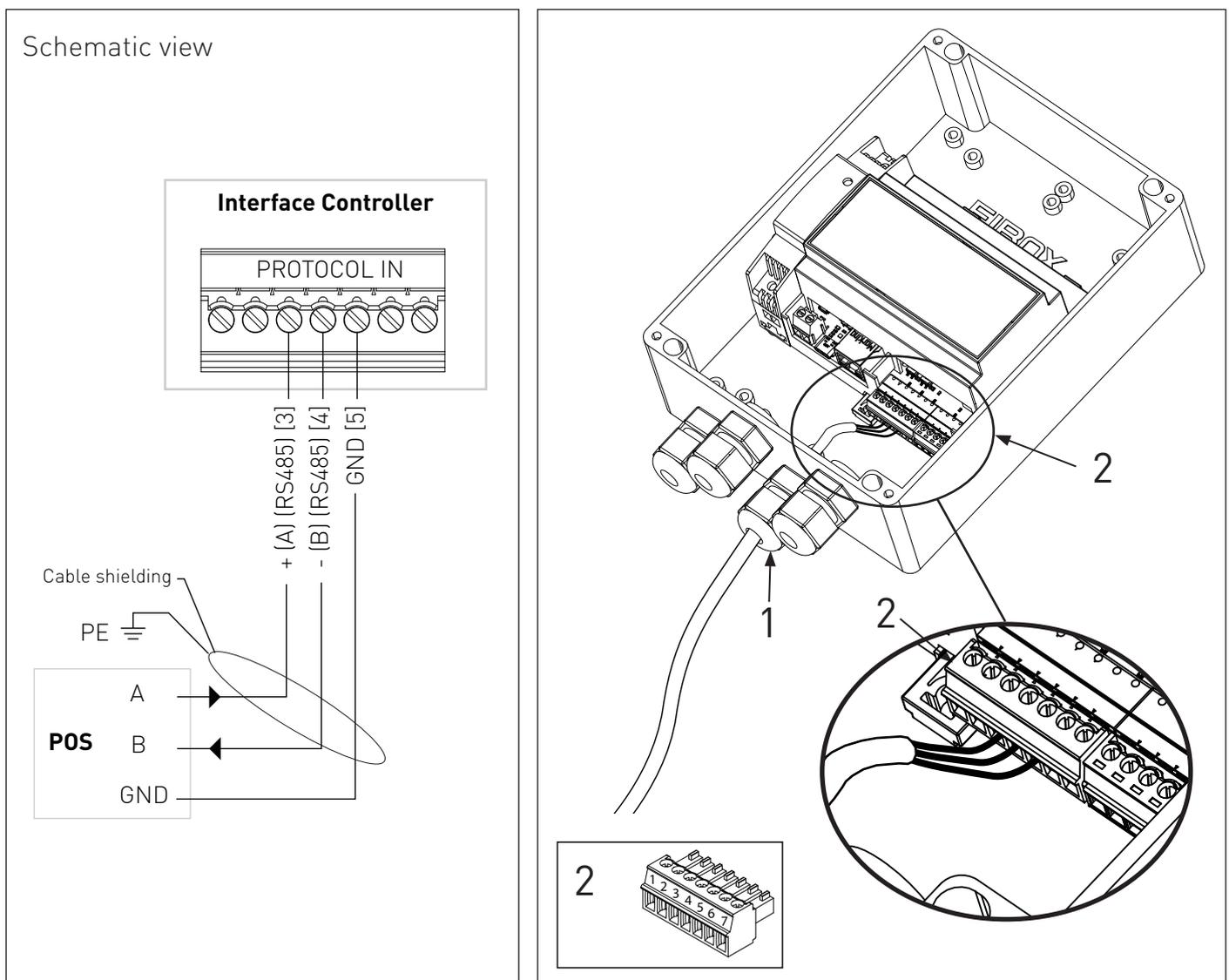
3.5 Connect the POS through RS485

For protocols using RS485 as a default setting please look at the table on page 6.

- This protocol uses a three wire connection.
- The data cable must be a twisted-pair (2 x 2 x 0,25mm²) shielded cable.
- Always make sure wire ferrules are applied to the data cable.

1. Feed the data cable through the cable gland which is located at the bottom of the I-C (Interface Controller) housing.
2. There are connectors located at the bottom of the I-C circuit board. The 7-pole connector must be used for the connection of the data cable.

Use the schematic view for the correct connections. The numbers shown on the protocol IN connector of the I-C are equal to the numbers shown in the schematic view.



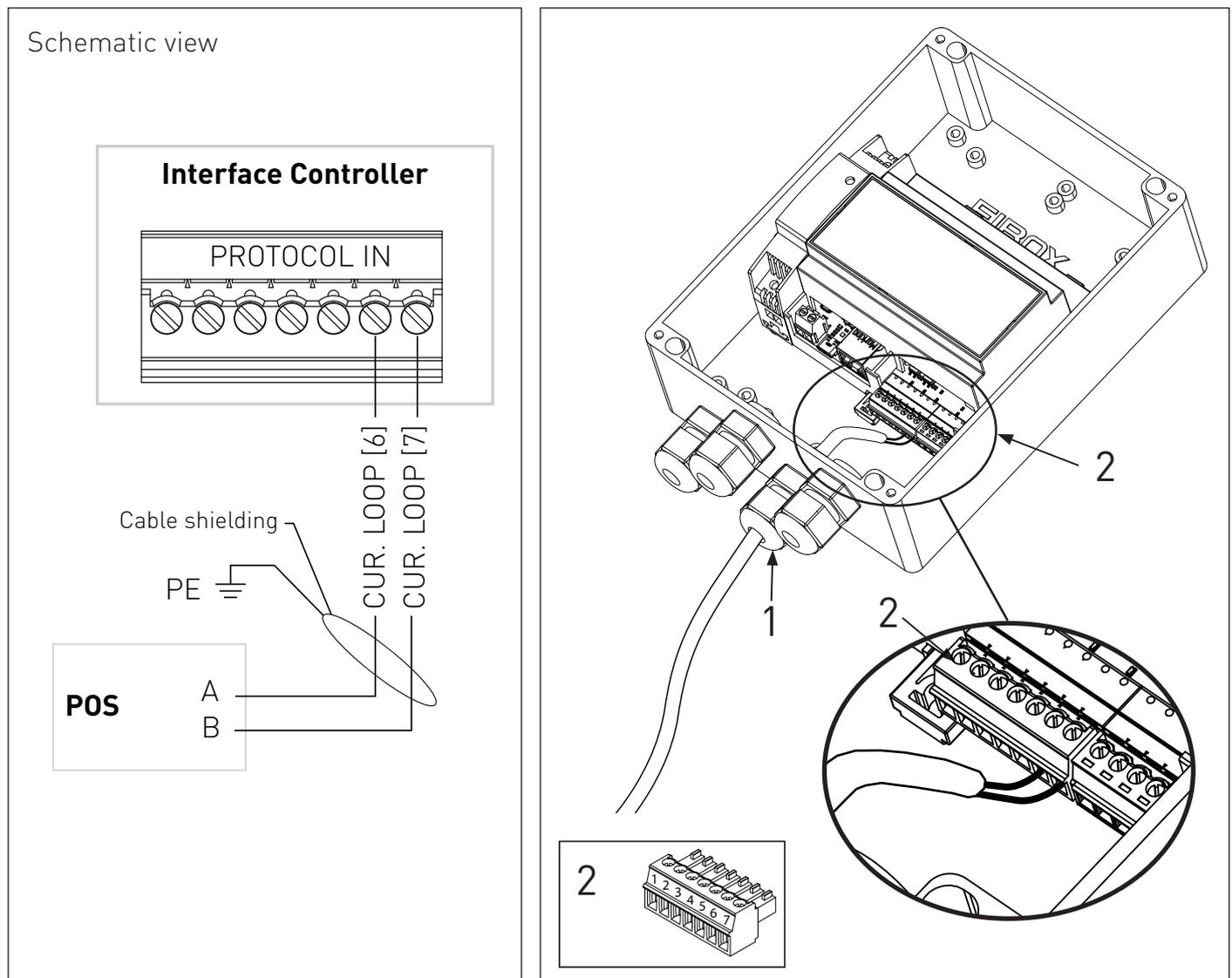
3.6 Connect the POS through Current Loop (CL)

CL (Current Loop) is used for: EIN

- This protocol uses a two wire connection.
- The data cable must be a twisted-pair (2 x 0,25mm²) shielded cable.
- Always make sure wire ferrules are applied to the data cable.

1. Feed the data cable through the cable gland which is located at the bottom of the I-C (Interface Controller) housing.
2. There are connectors located at the bottom of the I-C circuit board. The 7-pole connector must be used for the connection of the data cable.

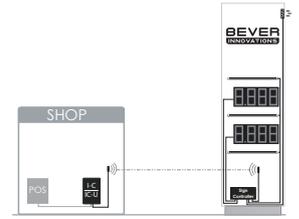
Use the schematic view for the correct connections. The numbers shown on the protocol IN connector of the I-C are equal to the numbers shown in the schematic view.



4. CONNECTION VIA RF (WIRELESS)

4.1 Introduction

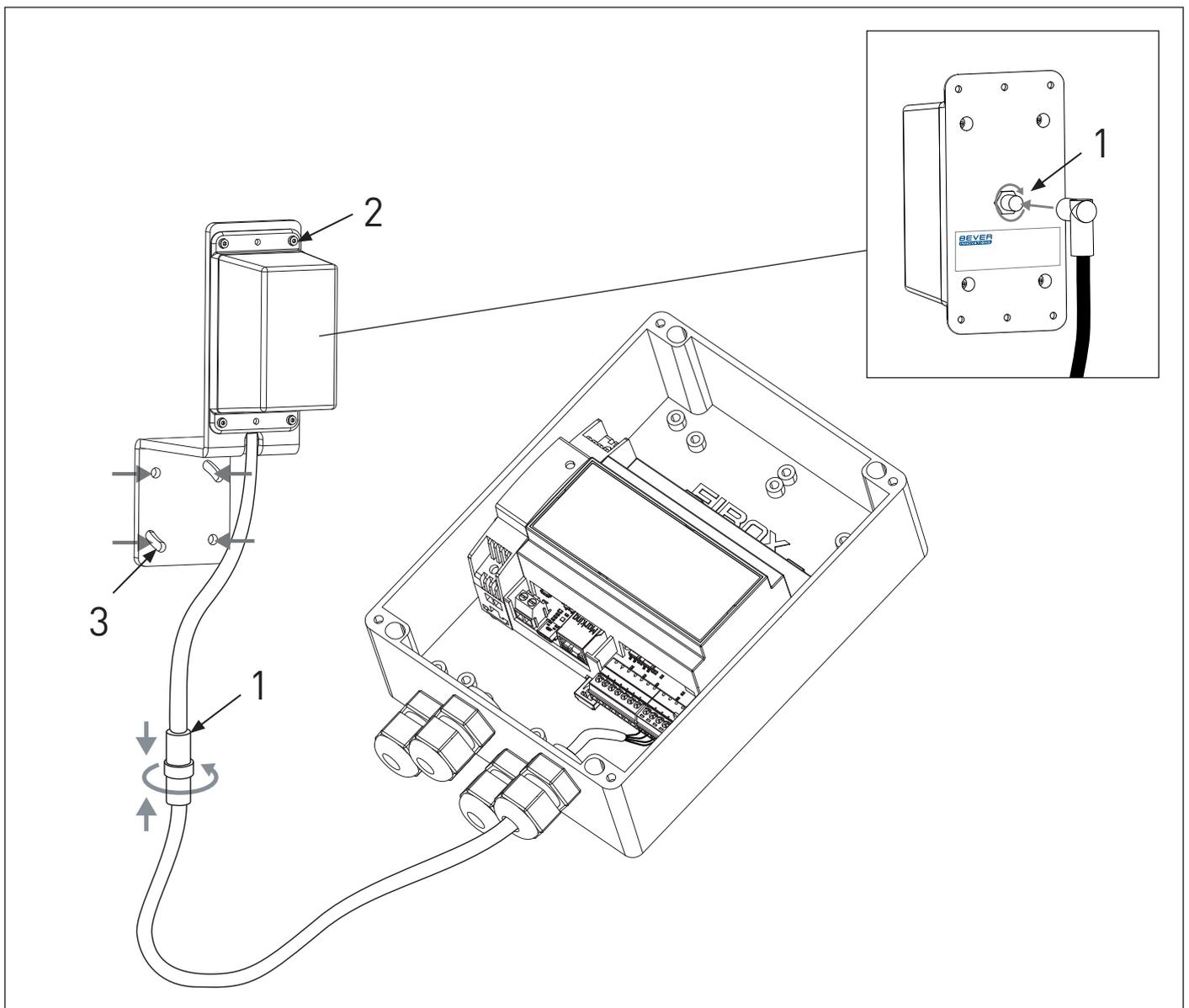
For POS connection type A, RF is used between an I-C and Sign Controller. The antenna must be placed in the shop near by the I-C and in the sign near the Sign Controller.



4.2 Connect the I-C RF modem antenna

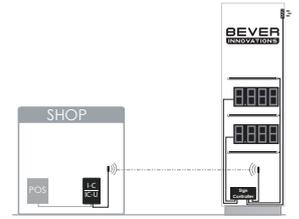
IMPORTANT: The antenna may not be placed directly onto metal frames. Also make sure no metal objects are in line of sight between the I-C antenna and the Sign Controller antenna. Place the I-C antenna in line of the antenna of the Sign Controller.

1. Connect the antenna cables
2. Place the antenna with screws on the antenna bracket.
3. Place the antenna bracket with 4 screws.

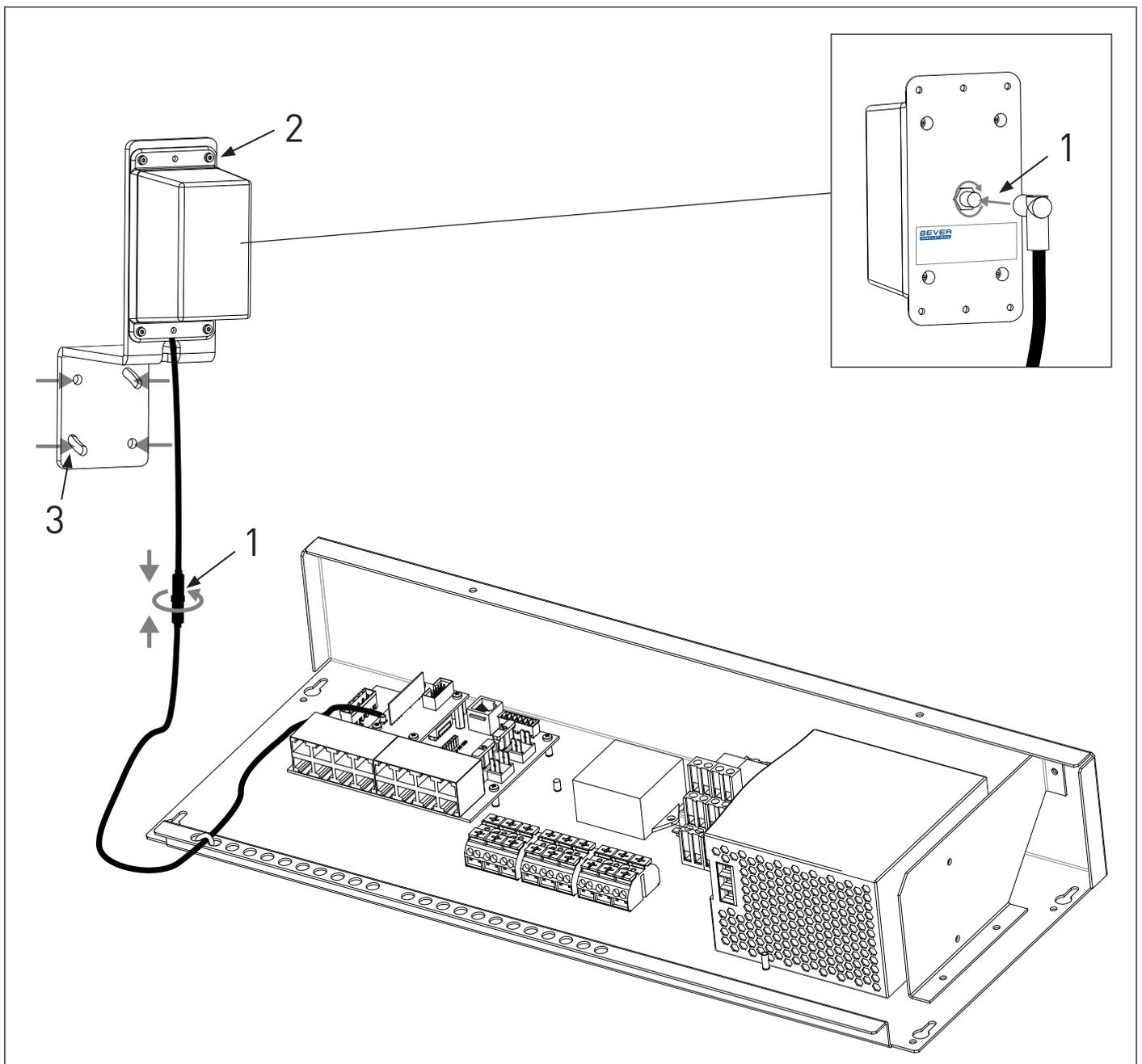


4.3 Connect the Sign Controller RF modem antenna

IMPORTANT: The antenna may not be placed directly onto metal frames. Also make sure no metal objects are in line of sight between the I-C antenna and the Sign Controller antenna. Place the Sign Controller antenna in line of the antenna of the I-C (IC-U).



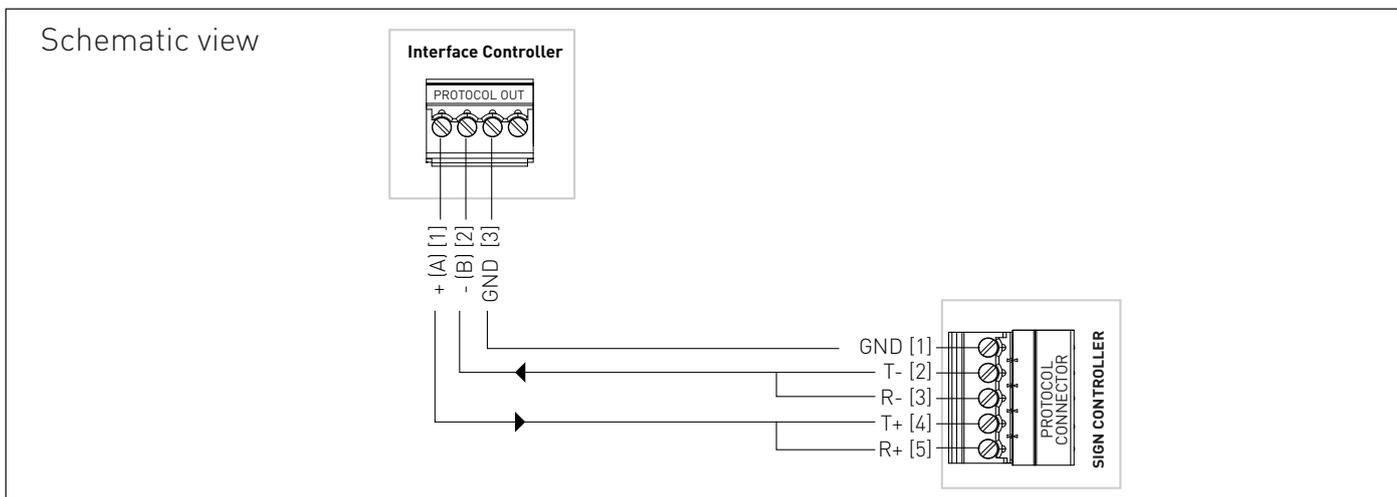
1. Connect the antenna cables
2. Place the antenna with screws on the antenna bracket.
3. Place the antenna bracket with 4 screws.



5. CONNECTION VIA DATA CABLE

5.1 Introduction

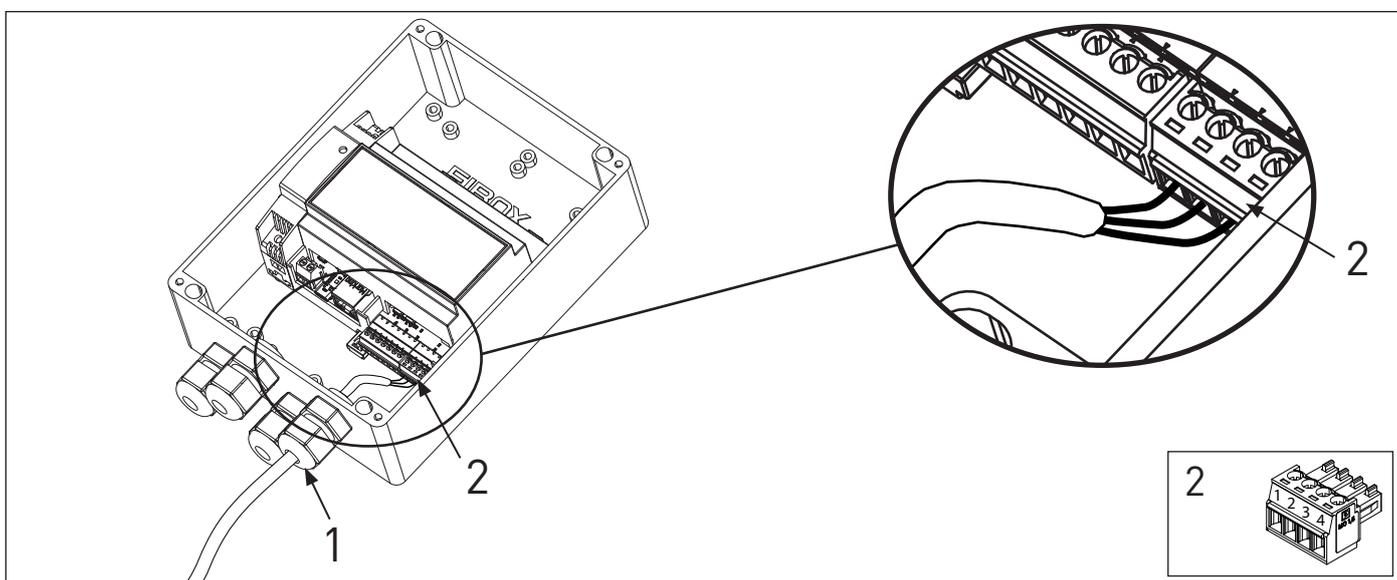
For POS connection type B, a data cable is used between an I-C and Sign Controller. The data cable must be connected to the protocol OUT port which is located on the I-C.



5.2 Connect the data cable to the Interface Controller

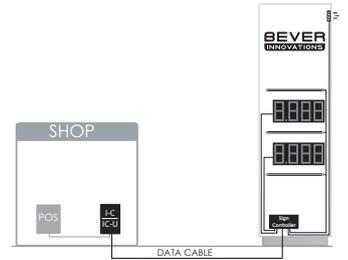
- The I-C is connected to the Sign Controller using a three wire connection
 - The data cable must be a twisted-pair (2 x 2 x 0,25mm²) cable.
 - Always make sure wire ferrules are applied to the data cable.
1. Feed the data cable through the right cable gland which is located at the bottom of the I-C (Interface Controller) housing.
 2. There are connectors located at the bottom of the I-C circuit board. The right connector must be used for the connection of the data cable.

Use the schematic view for the correct connections. The numbers shown on the protocol OUT connector of the I-C are equal to the numbers shown in the schematic view.



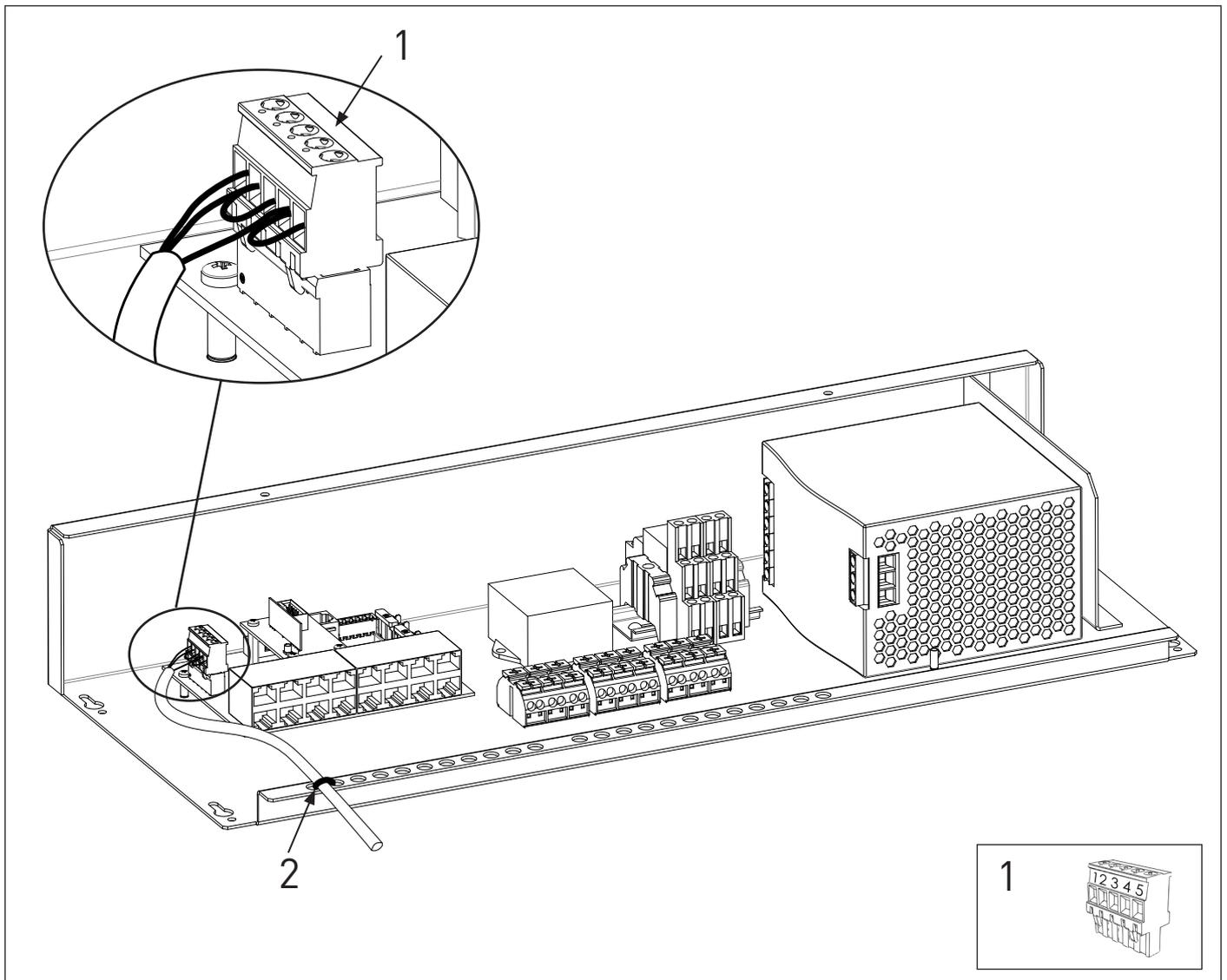
5.3 Connect the data cable to the Sign Controller

- Always make sure wire ferrules are applied to the data cable.



1. The protocol connector is located on the left side of the Sign Controller circuit board.
2. Mount the cable to the cable tie rail with a cable tie. This way the cable tie works as a strain relief.

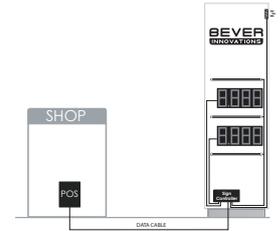
Use the schematic view for the correct connections. The numbers shown on the protocol connector of the Sign Controller are equal to the numbers shown in the schematic view.



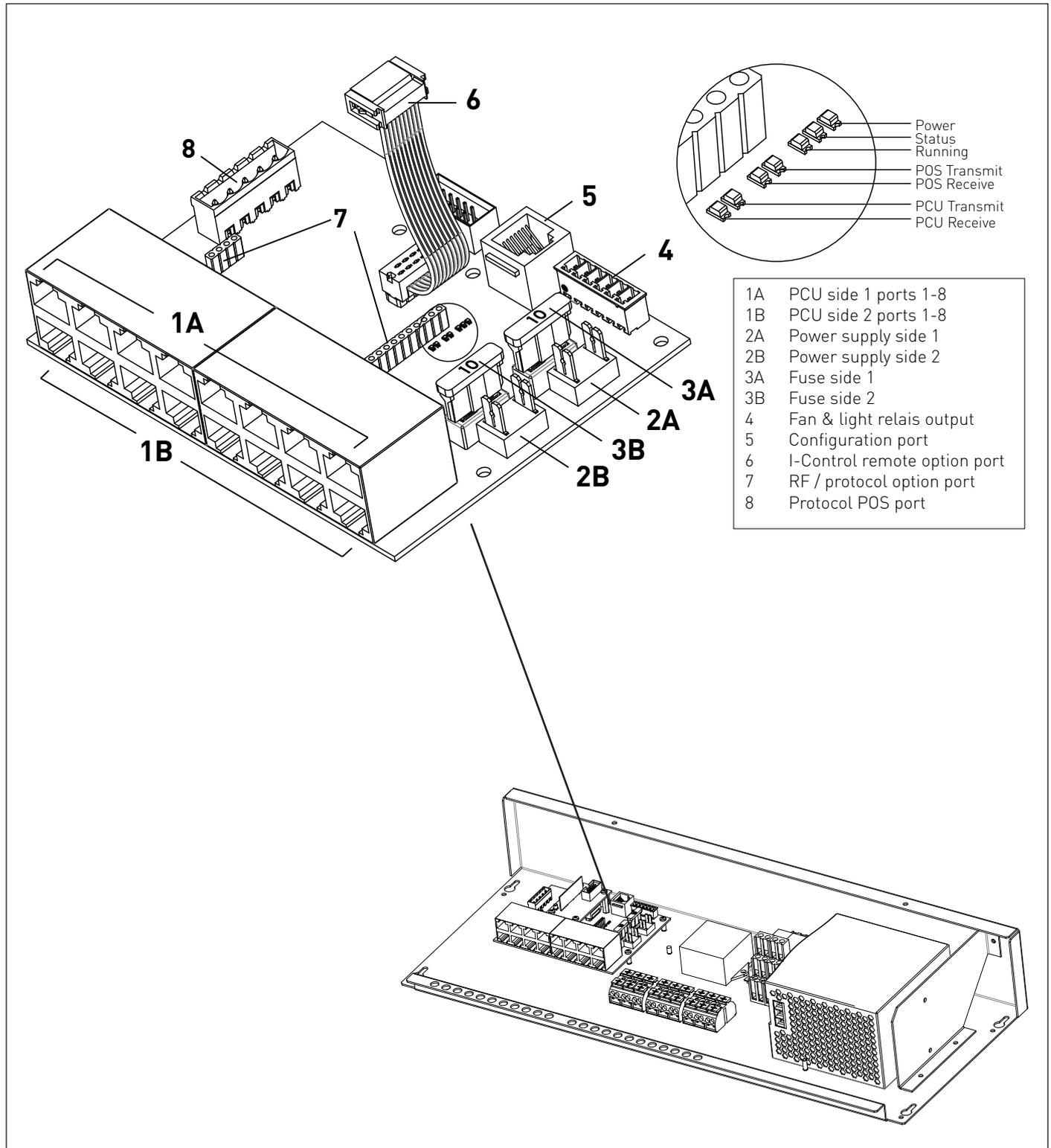
6. CONNECT THE POS TO THE SIGN CONTROLLER

6.1 Introduction

In some of the POS protocols is it possible to connect the POS data cable directly to the sign controller.



Important: This option is not possible for all protocols, please look at the table on page 6.

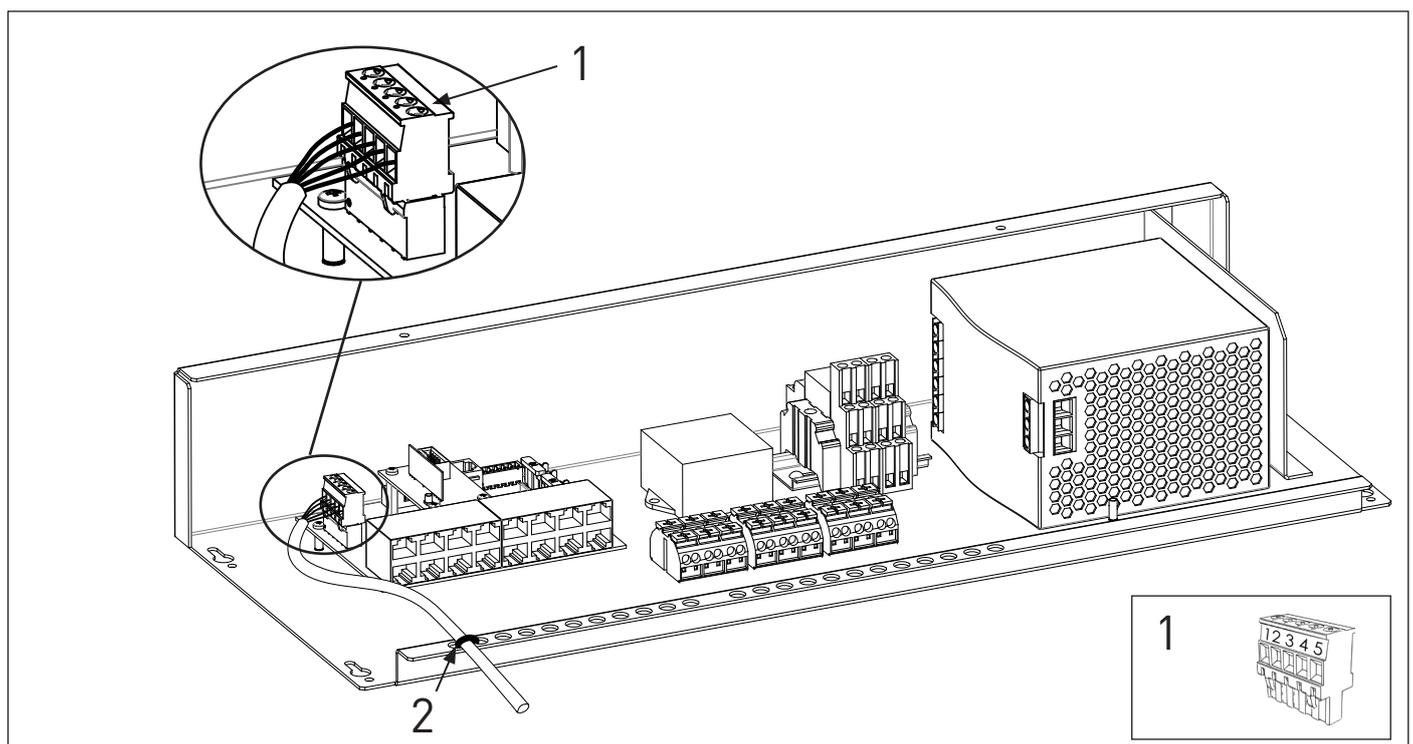
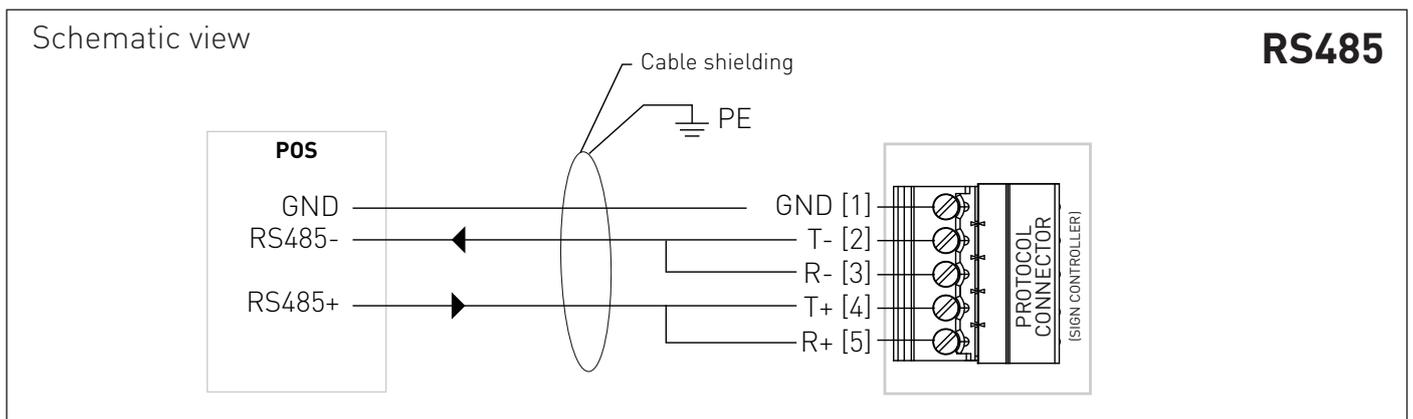
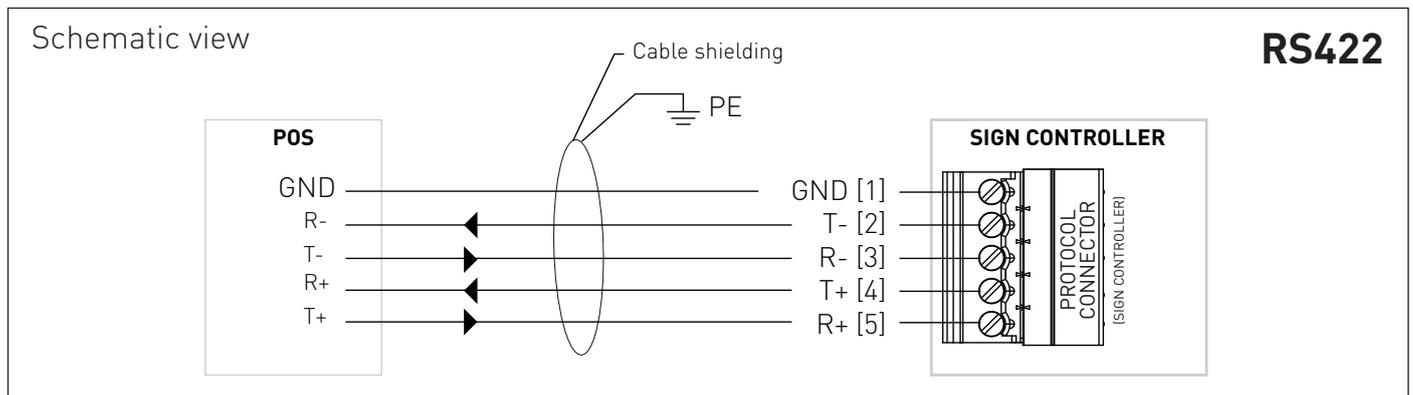


6.2 Connect the POS data cable to the Sign Controller for RS422 & RS485

- Always make sure wire ferrules are applied to the data cable.

1. The protocol connector is located on the left side of the Sign Controller circuit board.
2. Mount the cable to the cable tie rail with a cable tie. This way the cable tie works as a strain relief.

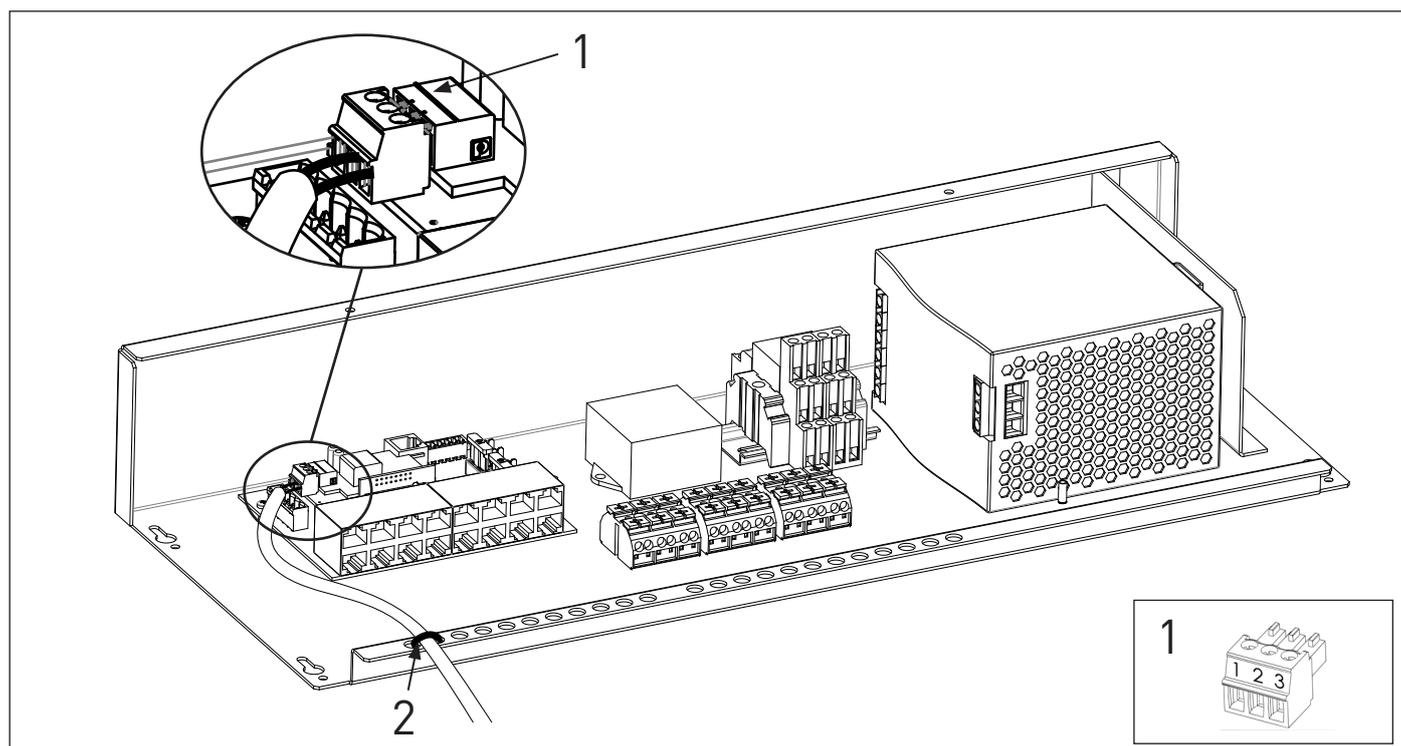
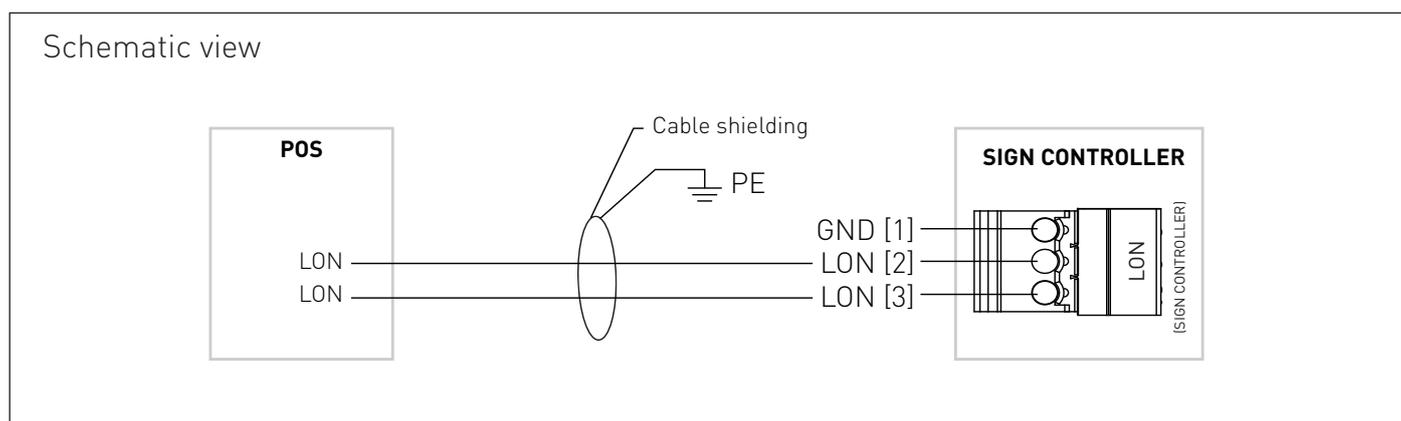
Use the schematic view for the correct connections. The numbers shown on the protocol connector of the Sign Controller are equal to the numbers shown in the schematic view.



6.3 Connect the POS data cable to the Sign Controller for LON

The POS data cable must be connected to the LON interface which is located in the Sign Controller.

- LON Pricepole uses a two wire connection.
 - The data cable must be a twinax cable.
 - Always make sure wire ferrules are applied to the data cable.
1. The LON interface is placed on the left side of the Sign Controller circuit board.
 2. There are connectors located at the front of the LON interface. The upper connector must be used for the connection of the data cable. Because the two wires have no polarity, there is no specified order in which they must be connected.
 3. Mount the cable to the cable tie rail with a cable tie. This way the cable tie works as a strain relief.





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